## SEQUENCE LISTING

- <110> Hatteboer, Guus

  Verhulst, Karine Cornelia

  Schouten, Govert Johan

  Uytdehaag, Alphonsus Gerardus Cornelis Maria
  Bout, Abraham
- <120> RECOMBINANT PROTEIN PRODUCTION IN A HUMAN CELL
- <130> 2578-4038.3US
- <140> To be assigned
- <141> 2004-03-01
- <150> 06/129,452
- <151> 1999-04-15
- <160> 33
- <170> PatentIn version 3.1
- <210> 1
- <211> 41
- <212> DNA
- <213> Artificial Sequence
- <220>
- <223> PCR Primer-DHFR up, synthesized sequence
- <400> 1

gatccacgtg agatctccac catggttggt tcgctaaact g

```
<210> 2
<211> 37
<212> DNA
<213> Artificial Sequence
<220>
<223> PCR Primer-DHFR down, synthesized sequence
<400> 2
gatccacgtg agatctttaa tcattcttct catatac
                                                                    37
<210> 3
<211> 85
<212> DNA
<213> Artificial Sequence
<220>
      polylinker fragment, synthesized sequence, restriction fragment from
<223>
digestion of pIPspAdapt 6 with AgeI and Bam HI
<400> 3
accggtgaat tcggcgcgcc gtcgacgata tcgatcggac cgacgcgttc gcgagcggcc
                                                                    60
gcaattcgct agcgttaacg gatcc
                                                                    85
<210> 4
<211> 86
<212> DNA
<213> Artificial Sequence
```

<220>

<223> polylinker fragment, synthesized sequence, restriction fragmen	L III
digestion of pIPspAdapt7 with AgeI and Bam HI	
<400> 4	
accggtgaat tgcggccgct cgcgaacgcg tcggtccgta tcgatatcgt cgacggcgcg 60	)
ccgaattcgc tagcgttaac ggatcc 86	;
<210> 5	
<211> 43	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> PCR Primer-EPO-START, synthesized sequence	
<400> 5	
aaaaaggatc cgccaccatg ggggtgcacg aatgtcctgc ctg 43	i
<210> 6	
<211> 38	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> PCR Primer-EPO-STOP, synthesized sequence	
<400> 6	
aaaaaggatc ctcatctgtc ccctgtcctg caggcctc 38	

<210> 7

```
<211> 47
<212> DNA
<213> Artificial Sequence
<220>
<223> PCR Primer-LTR-1, synthesized sequence
<400> 7
ctgtacgtac cagtgcactg gcctaggcat ggaaaaatac ataactg
                                                                    47
<210> 8
<211> 64
<212> DNA
<213> Artificial Sequence
<220>
<223> PCR Primer-LTR-2, synthesized sequence
<400> 8
geggateett egaaceatgg taagettggt acegetageg ttaaceggge gaeteagtea
                                                                    60
                                                                    64
atcg
<210> 9
<211> 28
<212> DNA
<213> Artificial Sequence
<220>
<223> PCR Primer-HSA1, synthesized sequence
```

<400> 9

<210>	10	
<211>	50	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	PCR Primer-HSA2, synthesized sequence	
<400>	10	
gttaga	tcta agcttgtcga catcgatcta ctaacagtag agatgtagaa	50
<210>	11	
<211>		
<2.12>		
<213>	Artificial Sequence	
.220.		
<220>	Oligonucleotide, synthesized sequence, EcoRI linker	
<b>\223</b> >	Oligonacieotiae, synthesizea sequence, Ecoki ilinkei	
<400>	11	
ttaagt	cgac	10
<210>	12	
<211>	10	
<212>	DNA	
<213>	Artificial Sequence	
<220>		

28

gcgccaccat gggcagagcg atggtggc

<223> oligonucleotide, synthesized sequence, EcoRI linker

<400>	12	
ttaagt	cgac	10
<210>	13	
<211>	23	
<212>	DNA .	
<213>	Artificial Sequence	
<220>		
<223>	oligonucleotide, synthesized sequence, PacI linker	
<400>	13	
aattgt	ctta attaaccgct taa	23
<210>	14	
<211>	67	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	oligonucleotide, synthesized sequence, PLL-1	
<400>	14	
gccatc	ccta ggaagcttgg taccggtgaa ttcgctagcg ttaacggatc ctctagacga	60
gatctg	g .	67
<210>	15	
<211>	67	
<212>	DNA	
<213>	Artificial Sequence	

<220>		
<223>	oligonucleotide, synthesized sequence, PLL-2	
<400>	15	
ccagate	ctcg tctagaggat ccgttaacgc tagcgaattc accggtacca agcttcctag	60
ggatgg		67
<210>	16	
<211>	39	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	PCR Primer-CMVplus, synthesized sequence	
<400>	16	
gatcggt	cacc actgcagtgg tcaatattgg ccattagcc	39
0.1.0		
	17	
	29 DNA	
	DNA Artificial Sequence	
<213>	Artificial Sequence	
<220>		
<223>	PCR Primer-CMVminA, synthesized sequence	,
<400>	17	
gatcaaq	gett ccaatgeace gtteeegge	29

<210> 18

<211>	34	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	PCR Primer-CAMH-UP, synthesized sequence	
<400>	18	
gatcgat	cate getageacea agggeeeate ggte	34
<210>	19	
<211>	30	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	PCR Primer-CAMH-DOWN, synthesized sequence	
<400>	19	
gatcgtt	ttaa actcatttac ccggagacag	30
	20	
<211>	28	
<212>	DNA	
<213>	Artificial Sequence	
<220>	DCD Driver CIMI VID combbasined	
<223>	PCR Primer-CAML-UP, synthesized sequence	
400		
<400>	20	

gatecgtacg gtggetgeac catetgte

<210> 21

<211> 31

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR Primer-CAML-DOWN, synthesized sequence

<400> 21

gatcgtttaa acctaacact ctcccctgtt g

31

<210> 22

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> leader peptide sequence, synthesized sequence

<400> 22

Met Ala Cys Pro Gly Phe Leu Trp Ala Leu Val Ile Ser Thr Cys Leu

1

5

10

15

Glu Phe Ser Met

20

<210> 23

<211> 60

<212> DNA

<213> Artificial Sequence

```
<220>
<223> oligonucleotide-leader peptide coding sequence, synthesized sequence
<400> 23
atggcatgcc ctggcttcct gtgggcactt gtgatctcca cctgtcttga attttccatg 60
<210> 24
<211> 38
<212> DNA
<213> Artificial Sequence
<220>
<223> PCR Primer-UBS-UP, synthesized sequence
<400> 24
gatcacgcgt gctagccacc atggcatgcc ctggcttc
                                                                    38
<210> 25
<211> 20
<212> PRT
<213> Artificial Sequence
<220>
<223> leader peptide, synthesized sequence
<400> 25
Met Ala Cys Pro Gly Phe Leu Trp Ala Leu Val Ile Ser Thr Cys Leu
```

Glu Phe Ser Met

5

10

15

20

<220>

<210> 26 <211> 60 <212> DNA <213> Artificial Sequence <220> <223> oligonucleotide-leader peptide coding sequence, synthesized sequence <400> 26 atggcatgcc ctggcttcct gtgggcactt gtgatctcca cctgtcttga attttccatg 60 <210> 27 <211> 28 <212> DNA <213> Artificial Sequence <220> oligonucleotide, synthesized sequence, PCR product generated using <223> primers UBS-UP and UBSHV-DOWN on template pNUT-Cgamma <400> 27 gatcgctagc tgtcgagacg gtgaccag 28 <210> 28 <211> 29 <212> DNA <213> Artificial Sequence

89

<223> oligonucleotide, synthesized sequence, PCR product generated using primers UBS-UP and UBSLV-DOWN on template pNUT-Ckappa

gatccgtacg cttgatctcc accttggtc

29

<210> 29 <211> 50

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR Primer-15C5-UP, synthesized sequence

<400> 29

gatcacgcgt gctagccacc atgggtactc ctgctcagtt tcttggaatc

50

<210> 30

<211> 41

<212> DNA

<213> Artificial Sequence

<220>

<223> PCR Primer-HA1 forward primer, synthesized sequence

<400> 30

attggcgcgc caccatgaag actatcattg ctttgagcta c

41

<210> 31

<211> 39

<212> DNA

<213>	Artificial Sequence	
<220>		
<223>	PCR Primer-HA1 reverse primer, synthesized sequence	
<400>		
gatgcta	agct catctagttt gtttttctgg tatattccg	3 9
<210>	32	
<211>	42	
<212>	DNA	
<213>	Artificial Sequence	
<220>		
<223>	PCR Primer-HA2 reverse primer, synthesized sequence	
<400>	22	
	agct cagtetttgt atcetgaett cagtteaaca ee	42
guegee	ages eagestes accessaces eagesteads es	
<210>	33	
<211>	3052	
<212>	DNA	
<213>	Human Adenovirus Type 5	
<220>		
<223>	Nucleotides 459-3510 of Human Adenovirus Type 5	
<400> 3	23	
	gtgt atttataccc ggtgagttcc tcaagaggcc actcttgagt gccagcgagt	60
cycycag	gege accedeacee ggegageeee eeaagaggee accedegage geeagegage	00

agagttttct cctccgagcc gctccgacac cgggactgaa aatgagacat attatctgcc 120

acggaggtgt tattaccgaa gaaatggccg ccagtctttt ggaccagctg atcgaagagg 180 tactggctga taatcttcca cctcctagcc attttgaacc acctaccctt cacgaactgt 240 atgatttaga cgtgacggcc cccgaagatc ccaacgagga ggcggtttcg cagatttttc 300 ccgactctgt aatgttggcg gtgcaggaag ggattgactt actcactttt ccgccggcgc 360 ceggttetec ggageegeet cacettteee ggeageeega geageeggag cagagageet 420 tgggtccggt ttctatgcca aaccttgtac cggaggtgat cgatcttacc tgccacgagg 480 ctggctttcc acccagtgac gacgaggatg aagagggtga ggagtttgtg ttagattatg 540 tggagcaccc cgggcacggt tgcaggtctt gtcattatca ccggaggaat acgggggacc 600 cagatattat gtgttcgctt tgctatatga ggacctgtgg catgtttgtc tacagtaagt 660 720 gaaaattatg ggcagtgggt gatagagtgg tgggtttggt gtggtaattt ttttttaat ttttacagtt ttgtggttta aagaattttg tattgtgatt tttttaaaag gtcctgtgtc 780 tgaacctgag cctgagcccg agccagaacc ggagcctgca agacctaccc gccgtcctaa 840 aatggcgcct gctatcctga gacgcccgac atcacctgtg tctagagaat gcaatagtag 900 tacggatage tgtgactecg gteettetaa cacaceteet gagatacace eggtggteee 960 gctgtgcccc attaaaccag ttgccgtgag agttggtggg cgtcgccagg ctgtggaatg 1020 tatogaggac ttgcttaacg agcctgggca acctttggac ttgagctgta aacgccccag 1080 gccataaggt gtaaacctgt gattgcgtgt gtggttaacg cctttgtttg ctgaatgagt 1140

tgatgtaagt ttaataaagg gtgagataat gtttaacttg catggcgtgt taaatggggc 1200 ggggcttaaa gggtatataa tgcgccgtgg gctaatcttg gttacatctg acctcatgga 1260 ggcttgggag tgtttggaag atttttctgc tgtgcgtaac ttgctggaac agagctctaa 1320 cagtacetet tggttttgga ggtttetgtg gggeteatee caggeaaagt tagtetgeag 1380 aattaaggag gattacaagt gggaatttga agagcttttg aaatcctgtg gtgagctgtt 1440 tgattctttg aatctgggtc accaggcgct tttccaagag aaggtcatca agactttgga 1500 tttttccaca ccggggcgcg ctgcggctgc tgttgctttt ttgagtttta taaaggataa 1560 atggagcgaa gaaacccatc tgagcggggg gtacctgctg gattttctgg ccatgcatct 1620 gtggagagcg gttgtgagac acaagaatcg cctgctactg ttgtcttccg tccgcccggc 1680 gataataccg acggaggagc agcagcagca gcaggaggaa gccaggcggc ggcggcagga 1740 gcagagccca tggaacccga gagccggcct ggaccctcgg gaatgaatgt tgtacaggtg 1800 gctgaactgt atccagaact gagacgcatt ttgacaatta cagaggatgg gcaggggcta 1860 aagggggtaa agagggagcg gggggcttgt gaggctacag aggaggctag gaatctagct 1920 tttagcttaa tgaccagaca ccgtcctgag tgtattactt ttcaacagat caaggataat 1980 2040 tgcgctaatg agcttgatct gctggcgcag aagtattcca tagagcagct gaccacttac tggctgcagc caggggatga ttttgaggag gctattaggg tatatgcaaa ggtggcactt 2100 2160 aggccagatt gcaagtacaa gatcagcaaa cttgtaaata tcaggaattg ttgctacatt

tctgggaacg gggccgaggt ggagatagat acggaggata gggtggcctt tagatgtagc 2220 atgataaata tgtggccggg ggtgcttggc atggacgggg tggttattat gaatgtaagg 2280 tttactggcc ccaattttag cggtacggtt ttcctggcca ataccaacct tatcctacac 2340 ggtgtaagct tctatgggtt taacaatacc tgtgtggaag cctggaccga tgtaagggtt 2400 eggggetgtg cettttactg etgetggaag ggggtggtgt gtegeeceaa aageaggget 2460 tcaattaaga aatgcctctt tgaaaggtgt accttgggta tcctgtctga gggtaactcc 2520 agggtgcgcc acaatgtggc ctccgactgt ggttgcttca tgctagtgaa aagcgtggct 2580 gtgattaagc ataacatggt atgtggcaac tgcgaggaca gggcctctca gatgctgacc 2640 tgctcggacg gcaactgtca cctgctgaag accattcacg tagccagcca ctctcgcaag 2700 2760 gcctggccag tgtttgagca taacatactg acccgctgtt ccttgcattt gggtaacagg aggggggtgt tcctacctta ccaatgcaat ttgagtcaca ctaagatatt gcttgagccc 2820 gagagcatgt ccaaggtgaa cctgaacggg gtgtttgaca tgaccatgaa gatctggaag 2880 gtgctgaggt acgatgagac ccgcaccagg tgcagaccct gcgagtgtgg cggtaaacat 2940 attaggaacc agcctgtgat gctggatgtg accgaggagc tgaggcccga tcacttggtg 3000 ctggcctgca cccgcgctga gtttggctct agcgatgaag atacagattg ag 3052